CASE NOTES AND CLINICIANS: GALEN’S
COMMENTARY ON THE HIPPOCRATIC EPIDEMICS
IN THE ARABIC TRADITION*

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Abstract: Galen’s Commentaries on the Hippocratic Epidemics constitute one of the most detailed studies of Hippocratic medicine from Antiquity. The Arabic translation of the Commentaries by Ḥunayn ibn Ishāq (d. c. 873) is of crucial importance because it preserves large sections now lost in Greek, and because it helped to establish an Arabic clinical literature. The present contribution investigate the translation of this seminal work into Syriac and Arabic. It provides a first survey of the manuscript tradition, and explores how physicians in the medieval Muslim world drew on it both to teach medicine to students, and to develop a framework for their own clinical research.

Résumé: Les Commentaires de Galien des Épidémies d’Hippocrate représentent l’une des études les plus détaillées de la médecine hippocratique qui nous soit parvenue de l’Antiquité. La traduction de Ḥunayn ibn Ishāq (m. c. 873) est d’une importance majeure, non seulement parce qu’elle préserve de grandes parties de l’original grec, aujourd’hui perdues, mais encore parce qu’elle contribua à établir une littérature clinique en terre d’Islam. Cet article fournit un premier examen de la tradition manuscrite et étudie la manière dont les médecins du Moyen-Âge arabe s’inspirèrent de ce texte et pour enseigner la médecine aux étudiants et pour développer un cadre théorique destiné à leurs propres recherches cliniques.

Case histories, the records of how diseases develop in individual patients, have occupied a prominent place in clinical practice and research from antiquity until today. One of the oldest and most seminal texts belonging to this genre of medical literature, the

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Hippocratic *Epidemics*, has fascinated generations of physicians, philosophers, and philologists, who endeavoured to elicit its meaning and to interpret it in view of their own ideas. Galen (d. c. 216/17), pursuing his various interests, wrote a massive commentary on those parts of the *Epidemics* which he considered genuine. Hippocrates’ work and Galen’s commentary proved to be particularly popular in the medieval Islamic world. Not only did Ḥunayn ibn Ishāq (d. c. 873) translate the latter into Syriac and Arabic, but he also abridged it a number of times for educational ends. The greatest clinician of the Middle Ages, Abū Bakr Muḥammad ibn Zakariyā al-Rāzī (d. c. 925, known as Rhazes in Latin), followed in the footsteps of Hippocrates and had many of his patients’ case histories recorded by his students. Moreover, Galen’s commentary served as the theoretical framework for some of his most innovative medical research. Other luminaries such as Ibn Riḍwān (d. 1068) and Ibn al-Nafīs (d. 1288) also engaged with the Greek tradition and wrote commentaries of their own.

The present contribution aims at investigating how the Hippocratic *Epidemics* and Galen’s commentary were transmitted into Syriac and Arabic. It shall also briefly consider how these texts in their Arabic guise then inspired various authors in their theoretical writings, and influenced clinicians in their practical work. After a short section on the Greek background to later developments, I shall discuss Ḥunayn ibn Ishāq and his Syriac and Arabic translation of Galen’s commentary.¹ The conflicting evidence contained in his Epistle (Risāla) and the manuscripts, as well as Ḥunayn’s remarks about the difficulties caused by the bad condition of the Greek manuscripts to which he had access will come under scrutiny. After briefly looking at the abridgments which Ḥunayn produced for pedagogical purposes, I shall review the extant manuscripts of the Arabic versions, and finally turn to al-Rāzī’s case notes and clinical trials, and Ibn al-Nafīs’ commentary; they illustrate the great impact which the *Epidemics* had on the development of both clinical and theoretical medicine.

**THE GREEK TRADITION**

The Hippocratic *Epidemics*, as they have come down to us, constitute a heterogeneous collection of case notes, surrounded by much mystery.² To begin with, even the meaning of their title, ἐπιθημία, is

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² The secondary literature on the Hippocratic *Epidemics* is massive. This text was the focus of a Colloque Hippocratique in the mid-eighties; see Gerhard Baader, and Rolf Winau.
elusive. It literally means ‘coming to (epí) a community (dêmos)’, that is to say ‘visits’ or ‘visitations’. Could it refer to physicians visiting different cities in ancient Greece? or diseases ‘visiting’ different localities? On the basis of the available evidence, we are unlikely ever to determine with certainty how fifth-century-BC readers understood the title; by the time of Galen, however, it was generally taken to mean ‘diseases which visit (ἐπινήματος) a community’. Furthermore, the Epidemics are a prime example for the problems posed by the so-called Hippocratic question: which of the works – or parts of works – attributed to Hippocrates go back to the historical Hippocrates (fl. c. 420s BC)? Today we have seven books of Epidemics within the Hippocratic Corpus, but they differ considerably in scope and style. In the past, scholars often regarded books One and Three as written by the historical Hippocrates, whilst dismissing the remaining ones as being much inferior both in content and language. W. H. S. Jones, for instance, extolled books One and Three as the ‘most remarkable product of Greek science’; it was only in 1994, however, that W. D. Smith produced an English translation of the remaining books for the Loeb series.

Debates about the Hippocratic question did not begin in the last century, but already occupied the minds of critics in classical times. Galen, too, did not believe that Hippocrates wrote all the seven books of the Epidemics. He dismissed books Four, Five, and Seven as spurious. Yet he did consider books One, Two, Three, and Six as genuine enough to merit extensive examination and explanation. Consequently he composed a substantial commentary on them, by far his largest work of this type – some 350,000 words long. Because of its enormous size, this work (henceforth Gal. in Hipp. Epid.) needed to be cut into smaller pieces. The commentary on each Hippocratic book is further, and somewhat confusingly, divided into books: there are 3 books of commentary on Book One of the Epidemics; 6 books on Book Two; 3 books on Book Three; and 8 books on Book Six. Neither in Greek nor in Arabic is there a terminological difference between the Hippocratic and the Galenic books. They are simply called βιβλία or maqāla respectively, the latter sometimes being replaced


by its synonym kitāb without any semantic difference. For the sake of clarity, however, I shall refer to the former as books and the latter as parts, indicating the underlying Arabic only where this is required for clarity’s sake.

Galen’s Commentary on the Hippocratic Epidemics mirrors the idiosyncratic nature of the original. He composed his commentaries to books One, Two, Three, and Six successively in the latter part of his life. In the preface to Book One (lost in Greek), as well as in various other places of this commentary, Galen outlines the reasons for engaging with the Epidemics: other authors, especially empiricists, have misunderstood or misrepresented Hippocrates, claiming him to be one of theirs; now Galen wants to set the record straight. Yet, the anti-empirical stance is only one – albeit a major – motive. At times, the Hippocratic text is extremely obscure, especially in book Six, and Galen struggled to make it comprehensible. For the most part, Galen provides a lemmatic commentary, which is to say that he quotes portions of the Hippocratic original, and explains them on different levels. Sometimes he focuses on questions of textual criticism and variant readings, or the meaning of an obscure term; and sometimes, he is more concerned with medical matters. The reader unfamiliar with the Epidemics and Gal. in Hipp. Epid. can gain a first impression of the character of both the original and the commentary from Appendix One; it contains the first case history from book Two together with Galen’s commentary. Occasionally, Galen embarks on sometimes quite lengthy digressions, such as the one on ‘How to test those who simulate to be ill (Πῶς χρή ἐξελέγχειν τοὺς προσποιομένους νοσεῖν).’ It is also important to note that Galen used his commentaries in general, and that on the Hippocratic Epidemics in particular, to mould Hippocratic texts into a theory with which he is comfortable and familiar. For instance, a recent study has shown that Galen interpreted passages about fever in book Six of the Epidemics in a way that allowed him to make the Hippocratic text (as explained by himself) the basis for his elaborate theory of fevers; or, to put it differently: ‘it was Galen’s theory-laden eyes that forged Epidemics VI into being the foundation of his fever theory.’

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7 See CMG, V, 10.2.4, pp. 113–16; this digression is the only substantial part of Galen’s Commentary on Book Two of the Epidemics which is preserved in Greek.

As in the case of many other Hippocratic texts, the *Epidemics* together with Galen’s commentary proved extremely popular in the medieval Arabic world. This rich engagement with the classical past was made possible by Ḫunayn ibn Isḥāq’s Arabic version of Gal. *in Hipp. Epid.*, to be discussed next.

**HUNAYN IBN ISḤĀQ**

Among the hundreds of Greek medical texts which Ḫunayn ibn Isḥāq and his team translated also figures Gal. *in Hipp. Epid*. We know chiefly from three main sources how Gal. *in Hipp. Epid.* was rendered into Arabic. First, in an *Epistle (Risāla)* to his patron called ‘Alī ibn Yaḥyā (d. 888 / 9). Ḫunayn recounted how his predecessor, he himself, and his colleagues produced the various Syriac and Arabic versions of Galenic texts; the entry on Gal. *in Hipp. Epid.* is number 95. This *Epistle* survives in two manuscripts, Istanbul, Süleymaniye Kütüphanesi, MS Aya Sofya 3590 (henceforth MS *B*, following Bergsträsser’s terminology), and Istanbul, Süleymaniye Kütüphanesi, MS Aya Sofya 3631 (henceforth MS *A*). The textual relationship between the two manuscripts is not straightforward. MS *B* represents an older recension, and MS *A* a younger one, but the picture is further complicated by the fact that they both are contaminated, that is to say that they contain additional information from other sources which got copied into the manuscripts. Fortunately, these general difficulties are somewhat alleviated in the case of the entry on Gal. *in Hipp. Epid.*: here the two manuscripts do not differ greatly.

The second source for our knowledge of how Gal. *in Hipp. Epid.* was rendered into Arabic is the extant manuscripts of Ḫunayn’s translation. I shall discuss them in greater detail below. For now, suffice it to say that Madrid, Escorial, MS árabe 804 contains the commentaries on books One to Three (henceforth MS *E1*); Madrid, Escorial, MS árabe 805 contains the commentaries on book Six (henceforth MS *E2*); and Milan, Ambrosiana, MS B 135 sup., contains the commentaries on book Two, and the last two and a half parts of book Six – that is to say, those parts no longer extant in Greek – as well as Ḫunayn’s *Summaries* in question-and-answer

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10 David Pingree, art. ‘Banū Monoqeqm’, *Encyclopaedia Iranica*, vol. 3, p. 716a-b.


12 Bergsträsser, *Neue Materialien*, p. 52, summarised his findings in a stemma.
format regarding the same parts (henceforth MS M). Finally, Paris, Bibliothèque nationale de France, MS 2846 fonds arabe is a late and partial copy of MS M, containing the commentaries on book Two and Six also preserved in MS M, but not Ḥunayn’s Summaries (henceforth MS P). These manuscripts contain precious material on how Ḥunayn produced his translation. First of all, they obviously preserve its text, but they also comprise many comments by Ḥunayn about the difficulties which he faced when translating it.

The third set of sources is the entries in the bio-bibliographical authors such as Ibn al-Nadīm, al-Qifti, and Ibn Abī Uṣaybi’a. Since they are often derived either from Ḥunayn’s Epistle or the manuscripts of the Arabic versions, they will only be discussed here insofar as they offer additional information or corroborative evidence.

EPISTLE AND COLOPHON

As already said, Ḥunayn’s Epistle contains an account of how Gal. in Hipp. Epid. was rendered into Syriac and Arabic. MSS E2, M (and its copy P) preserve a different, and, as I shall argue, earlier, version of this account. It runs as follows:13

13 MS E2, fol. 195b1-17; MS M, fol. 177b-14-ult.; the paragraph numbers are added here in the interest of discussion. Pfaff (CMG, V, 10:2.2, pp. xxix–xxx) has previously translated this colophon into German, but he misunderstood the difficult §§18–20.


14 Wörterbuch der klassischen arabischen Sprache, ed. Manfred Ullmann (Wiesbaden, 1955–), vol. 2, p. 428a7–14; there is a parallel passage in Bergstr. 22, 6. It seems that Ḥunayn uses ḡhāṣa as a technical term in the sense of ‘reconstructing, restoring [a corrupt work]’ here.

[19] . . . from Galen’s commentary on the work On Humours. [20] I do not know whether anyone else apart from myself translated it. [21] Galen composed other treatises [maqâlas] in some of which he quotes Hippocrates verbatim, and in others he explains his [Hippocrates’] intention [garad]; [22] however, I only found a small number of them [the latter]. [23] I am going to mention both of them.

This version of the account can roughly be divided into three parts. Paragraphs 1–12 provide information regarding the commentaries on

\[^{15}\text{E2}: \text{M} (\text{P1})\text{: }\text{Bergst.: }\text{frakt. }\text{مجرداً }\text{مجرداً}
\[^{16}\text{In the Epistle, Hunayn is more precise, saying: 'the fifth part of the commentary (al-maqaḍa al-ḥamisâ min al-tafsîr) [Bergsträsser, Hunain ibn Ishâq, p. 42, lines 2–3 (text)].}
\[^{17}\text{This is how Bergsträsser took it (p. 34: 'fehlerhaft, lükenhaft und verworren'); the implications of mungatîn muḥallaṭan may well be more specific, namely that it was bound erroneously, the folios having been 'cut up and mixed'.}
\[^{18}\text{I.e. Hunayn lost his library.}
the different Hippocratic books: §§1–3 deal with book One; §§4–10 with Two; and §§11–12 with Six. Then Ḥunayn makes some more general remarks about Gal. *in Hipp. Epid.*, ending with a more specific comment about book Two (in §18). The third part apparently consists of remarks regarding Ḥunayn’s translation of a different commentary by Galen, namely on Hippocrates’ *On Humours*; comparison with Ḥunayn’s *Epistle*, however, shows that §§19–23 are a pastiche of quotations taken from it.

From the first two parts, we learn the following. Job of Edessa, called ‘the freckled (al-abraš)’, had translated the three parts of the commentary on Book One into Syriac. This Job was originally a Melkite Christian who later converted to Nestorianism. He translated numerous other works by Galen into Syriac, some of which for Ḥibrā’il ibn Buḥtīšū (d. 827). Not much is known about his life, but he must have flourished in the 810s and ’20s. His *Book of Treasures* (مَهْرُّ أَلْمِرْحَبَة), an encyclopaedia of natural history, has come down to us.\(^{19}\) After Job, Ḥunayn translated the commentary on the first book into Arabic for Abū Ga’far Muḥammad ibn Mūsā. The latter was one of the three sons of Mūsā ibn Šākir, a highwayman turned plutocrat. His sons belonged to the ‘Abbāsid elite and were intimately linked to the translation movement, which they often sponsored.\(^{20}\)

The information about the second book in §§4–10 is both more detailed and more problematic. The difficulty stems from the fact that we have the first significant diversion between the earlier account in MSS E2, M (and P) and the version in Ḥunayn’s *Epistle* (contained in MSS B and A). According to the former, Galen’s commentary on Book Two contained *six* parts (§4), but Ḥunayn only had access to a Greek manuscript which ‘lacked one part’ and moreover was very corrupt (§6). Hunayn restored this manuscript as best he could and subsequently translated its emended text into Syriac and Arabic (§§7–8). The Arabic version was, as in the case of book One, commissioned by Abū Ga’far Muḥammad ibn Mūsā (§§3, 8). A small part of this book Two, however, remained untranslated (§9). When Ḥunayn lost his library, this emended manuscript which Ḥunayn had painstakingly produced, also perished.

In the *Epistle*, however, §§4–6 run slightly differently, and between §§4 and 5, additional information about the translation of book Three is added.\(^{21}\)

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\(^{19}\) A. Mingana, *Encyclopaedia of Philosophical and Natural Sciences as Taught in Baghdad about A.D. 817 or Book of Treasures by Job of Edessa* (Cambridge, 1935).


\(^{21}\) Bergsträsser, *Ḥunain ibn Ishāq*, p. 21, line 20 – p. 22, line 3 (text).

As the text stands here, Galen’s commentary on Book Two contains three, and that on Book Three six parts. Paragraphs 4a and 4b contain basically the same information as §§2 and 3, only now regarding book Two rather than One. Moreover §§5 and 6 now concern the commentary on the book Three rather than book Two. Whilst MSS E2, M (and P) only talk about ‘one part’ lacking, the Epistle specifies that ‘the fifth part’ was missing in the Greek manuscript. Now, Ḥunayn could not have written this version as it stands, because he knew (a) that book Two contained six, and book Three three parts, and not the other way round; and (b) because in his translation the fifth part of book Two, not book Three, is lacking – he even takes this lacuna as an opportunity to reflect on the difficult state of the Greek text, as we shall see shortly. It is easy to guess what happened: because the original account does not provide any information about Book Three, someone enlarged the entry by extrapolating from the information about book One. The additional fact that part five of book Two was the one which was missing in Ḥunayn’s Greek manuscript must have been added before this extrapolation occurred. In addition to this, this short extract from the Epistle illustrates another point, already observed by Bergsträsser, the fluidity of this text. Although the content – apart from the exceptions discussed above – is roughly the same in the MSS B, A, E2 and M (together with P), there is variation in expression, for instance between ṯarg̱ama and naq̱ala (to translate) or in the way the beginning of §6 is put.

In §§11–12, Ḥunayn only mentions the Syriac version by Job of Edessa, who also rendered the commentary on the book One into Syriac. Then Ḥunayn states that he has all these parts in his library, explaining that books One, Two, Three and Six are the only ones on which Galen commented, because he regarded the remaining as spurious (§§13–17). Paragraph 18 implies that, for book Two, Ḥunayn filled in the gaps in his manuscript by quoting directly from the
Hippocratic text. And, indeed, Ḥunayn himself does so as we can see from MSS E1 and M (and P):22

وحَدَّى هَنِينَ إِنِّي وَجِدْتُ فِي هذَا الْمَوْضُوعِ أَيْضًا مِنَ الْكِتَابِ الْيَوْمَيْنِيِّ الَّذِي تَرَجُمَتْ مِنْهُ نَقْصًا قُولً مِنْ أَقاوِيلِ أَبِيْقَرَاطِ يَبْتَغُوُهُ أَنْتَقَدُ وَيَلْعَبُهُ مَعْ لِبَنِيَةَ فيْهُ فَوَضَعَتْ ذَلِكَ الْقُوْلُ النَّاقُصُ مِنْ كِلَامِ أَبِيْقَرَاطِ وَأَضْفَتْ إِلَيْهِ مِنْ التَّفَصِّيْلِ ماَ ذَمَنَتْ أَنْ يُضَاحَكَ مَذْهِبَ جَالِيْنُوسِ فِي تَفْسِيرِهِ لَهُ وَمَا يُتَبَدَّهُ.

Ḥunayn said: I have noticed that, at this point in the text of the Greek book from which I translated, a certain passage from Hippocrates which followed the preceding one [just discussed] was missing, as was some of Galen’s commentary on it. I have written down this missing passage from Hippocrates’ discussion [kalâm] and added to it a commentary which I thought would be similar to that of Galen in doctrine, as well as in what he would oppose.

This confirms both that a small part of book Two remained untranslated (§9); and that Ḥunayn filled these gaps as best he could. In doing so, he must have had access to the text of Hippocrates not through the lemmas extracted from the commentary (since they were missing), but from an independent text. He thought it so important to explain the Hippocratic text that he even wrote a commentary himself, where none by Galen was extant.

Let us now briefly consider §§19–23. They appear to concern Galen’s commentary on Hippocrates’ On Humours. The text in the manuscripts is continuous, but these paragraphs originally come from Ḥunayn’s Epistle: §19 corresponds to p. 42, line 20; §20 to p. 44, line 8; and §§21–3 to p. 44, lines 12–14. What Ḥunayn says in §20, for instance – that he knows of no other translation of Galen’s Commentary on the Hippocratic On Humours except his own – is in stark contrast to the information contained in the Epistle. There he states that ‘Īsā ibn Yahyā translated it into Arabic.23 Moreover, §§21–23 only make sense in the context of the Epistle where they occur. Therefore the whole of §§19–23 is clearly a pastiche, and it is difficult to know why it occurs here in its present form.

Instead of this confused ending in MSS E2 and M (with P), the Epistle concludes in the following way:24

22 MS E1 fol. 53a[129b], lines 7–9; MS M fol. 12b, lines 13–16; MS P fol. 25b second line from the bottom–fol. 26a, line 2; corresponding to CMG, V, 10.1, p. 187, line 39–p. 188, line 4.
23 Bergsträsser, Hunain ibn Ishāq, p. 42, lines 18–19 (text).
24 Ibid., p. 42, lines 13–19 (text).
Then afterwards I translated the eight parts in which Galen commented on the book Six of the Epidemics into Arabic. After the commentaries on the four books of the work by Hippocrates known as the Epidemics – namely of books One, Two, Three, and Six – resulted in 19 parts [in the Arabic translation], I abridged their content by way of question and answer in Syriac. ‘Iṣā ibn Yahiya translated it [this abridgment] into Arabic.

Thus Hunayn explains that he translated ‘afterwards (min ba’du)’ the commentary on Book Six (§24), and that the total number of parts is nineteen, i.e. $3 + (6 - 1) + 3 + 8 = 19$. Finally, he ends by saying that he produced a Syriac abridgment of the commentary ‘by way of question and answer (‘alā ġihat al-su’āli wa-al-ġawābi)’, which ‘Iṣā ibn Yahiya (fl. c. 850s) subsequently rendered into Arabic. We know very little about this Iṣā ibn Yahiya. A younger contemporary and pupil of Hunayn’s, he translated a great number of texts from Syriac into Arabic; it would appear that he knew little or no Greek. His Arabic translation of the Questions on the Epidemics (Masā’il al-Abū‘līmiyya) – as Hunayn’s abridgment was known – is actually preserved in MS M; I shall discuss this text below.

DIFFICULTIES IN THE GREEK MANUSCRIPT TRADITION

Not only in the Epistle, but also in the translation itself does Hunayn make comments and remarks about the difficulties which he had to surmount in order to produce a reliable translation. One such remark is particularly illuminating and deserves further discussion:27

27 MS M, fol. 67a2 sqq.; [MS P, fols. 147a7–147b12]; MS E1, fols. 105a[78b], line 12 from the bottom–105b[78a], line 4; corresponding to CMG, V, 10.1, p. 353, lines 9–39.
Hunayn said: 'Of the fifth part of Galen’s commentary on this, the second, book of Hippocrates’ work we have not found any manuscript in Greek. Of the commentary on this book [i.e. the second] which we did find, there are two manuscripts: [3] the first in the manner of books in which all the text in them is copied continuously; [4] and the second in the manner of something which has been examined superficially ['alā ʿarqī mā yultaqaṭu bihi minhu natfun]. [5] Its [the extract’s] author said about it that he concentrated on the useful quotations [by Hippocrates] and explanations [by Galen] from this book [i.e. the second]. [6] In neither of the two manuscripts did we find the fifth part, not even anything at all. [7] The extract manuscript, however, does show us clearly that it was not produced from the one which was complete according to the calculation [‘alā al-ḥisāb], [8] since we found in the extract manuscript many entire quotations together with their explanation [aqāwil kaṭīra bi-asrīḥā māʾa taḥāsīrīhā] which had fallen out from the manuscript which was complete according to the calculation [‘alā al-ḥisāb]. [9] I am surprised that the
scribe of this manuscript did not stop to make a certain type of error long recognised by people without [first] committing it. [10] Then he invented other strange kinds of mistakes all by himself. [11] If, indeed, these errors were committed by him – and the corruption is certainly not ours –, then he made them intentionally. [12] For he does not limit himself to adding, subtracting, and writing something else instead of the [original] thing, so that something else came . . . [13] In places of the book, he began to compile ten folios or so, then he wrote from the place to which he jumped two or three folios, then he goes back ten folios or so from where he cut the book. [14] He continued to jump back and forth in this way, sometimes going back and sometimes going forward in the most crazy fashion, so that one gets frightened. [15] I took enormous trouble to save of this book what I could, and I describe this [process], [16] in order that when someone interested in science comes after me, he finds a manuscript of this book in Greek which is complete and correct. [17] My description should stimulate him to collate and emend this book and to complete the things which are missing here, [18] so as to save me from blame, God willing.

This remark occurs between the end of the fourth and the beginning of the sixth parts of Galen’s commentary to book Two. Ḥunayn first states that the fifth part is missing in his manuscripts of book Two (§§1, 6). For his translation of the remainder of this book, he relies on two manuscripts: (1) a ‘normal’ one in which the text is copied continuously; and (2) an extract (§§2–4). The latter, according to its author, aims at providing the reader with what is ‘useful (nāfi’)’ (§5). This extract was not produced from the other manuscript in Ḥunayn’s possession, and therefore is an independent witness for the production of a correct text, especially where the other manuscript contains lacunae (§8). This said, the extract is replete with mistakes and often confuses the order of the text (§§9–14). Ḥunayn made every effort to amend and emend his text, in order to produce a good working copy (§15). He does, however, recognise that because of the pitiful state of his sources, further work is needed to restore the text (§§16–18).

Ḥunayn does not provide us with similar details for the other books of Gal. in Hipp. Epid., but we can assume that he had considerable difficulties to surmount in order to reconstruct the Greek text, and to translate it into Syriac and Arabic. This process took considerable time, and Ḥunayn drew on all sources available to him. That he did devote so much effort to this text shows how important he thought it to be. Yet, he did not stop at merely reconstructing and translating it.

**HUNAYN’S SUMMARY (ḠAWĀMI') IN QUESTION-AND-ANSWER FORMAT**

From the entry no. 95 on Gal. in Hipp. Epid. (§§26–7, see above p. 12), we have learnt that Ḥunayn wrote a Syriac abridgment in question-and-answer format which ʿĪsā ibn Yahyā later translated into Arabic.
Of this abridgment, we still have some fragments in MS M, notably concerning those parts not extant in Greek. The question-and-answer format represented a popular didactic device not only in Late Antiquity, but also in the medieval Muslim world. Hümayn also wrote an Introduction to Medicine (Mudhal fī al-ṭibb), which he later reworked into a sort of medical catechism, called Questions on Medicine (Masā’il fī al-ṭibb), in which he adopted this format. The fact that Hümayn decided to abridge the Epidemics and thus make them accessible to students shows that he attached great importance to this text. In Appendix Two, I have edited and translated the beginning of the questions and answers from book Two, corresponding to the text of Gal. in Hipp. Epid. included in Appendix One. By looking at this short passage and comparing it to Galen’s commentary, we shall be able to gauge the character of Hümayn’s abridgment and its relationship with both the Hippocratic Epidemics and Galen’s Commentary on them. I shall also suggest why Hümayn attached so much importance to these texts.

Before turning to the content of Hümayn’s abridgment, it is necessary to say something about its title. In the Epistle, he does not give a precise title, but merely says ‘iḥtasartum maʿaniyā ʿalā ḏihāti al-suʿālī wa-al-ḡawābi bi-al-suryāniyiṭi (I abridged their content by way of question and answer in Syriac’). In MS M, two titles occur. At the beginning, the following somewhat cumbersome heading appears: ‘Ḡawāmi’ maʿānt al-maqāla al-ʿalā min tafsīr al-maqāla al-tāniya min kitāb Abiṭimiyya ʿalā sabīl al-masʿalla wa-al-ḡawāb (Summary of the content of the first part of the commentary on the second book of the Epidemics in the form of question and answer’). Yet the colophon of Book Two refers to the work as ‘al-Masā’il ʿalā al-maqālātāl al-tāniyatā min kitābi Abuqraṭa fī al-amrādi al-wāfīdati (Questions on the second book of Hippocrates’ work On the Epidemic Diseases)’. Moreover al-Rāzī quotes this work under the generic title ‘Masāʾil Abīṭimiyya (Questions on the Epidemics)’. A certain fluidity in the titles of work is not uncommon; the Alexandrian Summaries, for instance, were referred to in five different ways within two manuscripts.

37 MS M, fol. 131b ult.
38 See Manfred Ullmann, Die Medizin im Islam, Handbuch der Orientalistik i. Erg. vi.1 (Leiden, Cologne, 1970), p. 30; and Jennifer Bryson, ‘The Kitāb al-Ḥāṣib of Rāzī (c. AD 900), Book One of the Ḥāṣib on brain, nerve, and mental disorders: Studies in the transmission of medical texts from Greek into Arabic into Latin’, Ph.D. diss. (Yale University, 2000), pp. 35–7. Bryson compared the quotations from al-Rāzī’s Comprehensive Book (al-Kitāb al-Ḥāṣib) with their original on the basis of MS M.
39 Peter E. Pormann, ‘The Alexandrian Summary (Jawāmi’) of Galen’s On the Sects for Beginners: Commentary or abridgment?’, in Peter Adamson et al. (eds.), Philosophy, Science
When reading the Questions on the Epidemics, to use this convenient title, one is immediately struck by the fact that Ḥunayn often takes his answers directly from his own translation of Galen’s Commentary. Yet, the great difference between the two is that in the Questions, the essential information is arranged in a very logical and easy-to-remember fashion. He starts out by giving a definition of the disease, in this case carbuncle (Appendix Two, §3), and lists the symptoms which generally accompany it (§§4–7). Then he explains what was specific about the carbuncles in Cranon (§§10). Thus far, Ḥunayn was concerned with nosology and, indirectly, diagnosis – how to define and recognise a disease. Then he turns to aetiology, enumerating the various causes which led to the prevalence of the condition under those specific circumstances (§§12–22). In the same vein, Ḥunayn provides the causes of other accompanying symptoms such as itching (§24) and blisters (§§26–31). He ends by affirming that blisters are general symptoms of carbuncles (§§33–5), and giving the two causes for their generation (§§38–40).

This short overview illustrates the logical structure and pedagogical purpose of the Questions. Ḥunayn proceeds from the general to the specific, and endeavours to arrange the material in the form of lists. This approach is in stark contrast to that of Galen, who only provides a definition and description of the disease in §§32–4 (corresponding very closely to Ḥunayn’s Questions §§2–7). Again, the information about the specific symptoms in Ḥunayn’s Questions, §10, comes nearly verbatim from Galen’s Commentary §69. When Ḥunayn provides aetiological information (§§12–22), he lists six causes provoking excessive putrefaction, which, in turn, caused the carbuncles. They are all mentioned at different points of Galen’s discussion. Yet, Ḥunayn states that ‘you can add to these causes a seventh’; this seventh cause is not found in Galen, but rather inferred by Ḥunayn himself. He makes this plain in the way he introduces it.

Although Ḥunayn produced his Questions on the Epidemics in Syriac, and ‘Īsā ibn Yahyā translated them into Arabic, there is a close textual connection between ‘Īsā’s version of the Questions (henceforth tr. ‘Ī.) and that by Ḥunayn of Gal. in Hipp. Epid. (henceforth tr. Ḥ.). There is abundant evidence that ‘Īsā must have had Ḥunayn’s translation in front of him when preparing his own. For instance, the definition of carbuncles in tr. Ḥ. runs as follows (§32):

\[
\text{wa-al- مجلة hiya qarḥatun takūna min tilqā’i nafsihā wa-‘alayhā ḥaṣka-} \\
\text{rīšatun ft akṭari al-amri sawdā’u wa-rubbamā kānat bi-lawni al-rāmādī.}
\]

A carbuncle is an ulcer which occurs by itself; on it there is scab, mostly black, although it sometimes has the colour of ashes [i.e. grey].

Tr. ‘Ī. is nearly an exact copy:

Mā hiya al-ğamratu? hiya qarḥatun min tilqāʾi nafṣihā fīṯā ḥaškarīsatun miṯla al-ḥaškarīsati allatī yakūnu lawnuhā fī akṭāri al-amrī aswada wa-rubbamā kānat bi-lawni al-ramādī.

What is a carbuncle? It is an ulcer occurring by itself in which there is scab resembling the scab the colour of which is mostly black, although it sometimes has the colour of ashes [i.e. grey].

Because of this close proximity, it is at times possible to improve the text of tr. Ḥ. by collating tr. ‘Ī. Suffice it to give just one example. The second symptom accompanying carbuncle mentioned in tr. ‘Ī. (§6) after the definition is ‘al-ḥumra allatī laysat bi-al-ḥālisati ka-ḥumratī al-waramī al-damawīyi (the redness which is not total as the redness of a bloody swelling’). This item in a list of three is based on tr. Ḥ. §34: ‘wa-al-mawaḏī’u aydāni allatī ḥawla al-ḥaškarīsati laysat bi-ṣādiqati al-ḥumratī ka-mā yakūnu fī al-waramī al-ḥāri allādī yusammā balḵanũt (The places, too, around the scab are not truly red, as in the case of an inflammation called ‘phlegmone’). The major difficulty in the source text, tr. Ḥ. is the word ‘ṣādiq (true); tr. ‘Ī. offers the solution, reading ‘ḥālis (total, absolute). Given that the two variants are very close from a palaeographical point of view (خالص، صادق), especially in a maḏribī hand, we are justified to consider ḥālis at least as an attractive variant; it might even be the correct reading. This example illustrates another feature of tr. Ḥ.: it simplifies. Whilst Ḥunayn rendered the Greek φλεγμονή (phlegmone) in a somewhat cumbersome manner as ‘al-waram al-ḥāri allādī yusammā balḵanũt (lit.: warm swelling called ‘phlegmone’), tr. ‘Ī. simply has ‘bloody swelling (al-waram al-damawī). And indeed, in Bar Bahlūl’s glossary, largely based on Ḥunayn’s own notes, we find the following entry which supports this shift:40 (Phlegmonē: the swelling (waram) which occurs because of blood (dam)). Thus ‘Īsā resorted to an easier diction, more appropriate for educational purposes.

This brings us to the final point about Ḥunayn’s interest in the Epidemics. Why did he attach so much importance to Hippocrates’ work and Galen’s commentary that he not only translated it, but also rendered it accessible for medical students? A thirteenth-century source even reports that Ḥunayn wrote a ‘sum extracted from the nineteen extant parts of Galen’s Commentary on Hippocrates’ book of Epidemics, in the form of questions and answers’, which may well

be a further abridgment of the *Questions on the Epidemics*, which has not come down to us.\(^{41}\) Be that as it may, the *Epidemics* were important for Ḥunayn, largely, I think, because of their clinical character. They exemplified how the great physicians of the past treated individual cases. And, importantly, they could be used to illustrate some of the principles of clinical teaching. The student, after all, needs to learn how to recognise and distinguish between different diseases. What better then to transform the Hippocratic text together with Galen’s explanations into some sort of question catalogue to which the student could turn when taking a patient’s history. By establishing whether the same environmental factors are present, or the same symptoms, he can come to a competent diagnosis of the disease. The *Epidemics* did not, however, serve teaching purposes only, but also constituted an important framework for medical research. Yet, before turning to this point, it is necessary briefly to discuss the textual tradition as presented in the manuscripts of Ḥunayn’s and ‘Īsā’s versions.

**THE MANUSCRIPTS AND TEXTUAL TRADITION**

Gal. in *Hipp. Epid.* is preserved in four manuscripts: \(\textbf{E1}, \textbf{E2}, \textbf{M}, \text{and \bf P}\); Ḥunayn’s *Questions on the Epidemics*, only survive in \(\textbf{M}\). Of the former, \(\textbf{E1}\) contains books One, Two, and Three; \(\textbf{E2}\) book Six; \(\textbf{M}\) and \(\textbf{P}\) book Two and the last two and a half parts of book Six. Franz Pfaff described the relation between \(\textbf{E1}, \textbf{E2}, \text{and \bf P}\) (he had no knowledge of \(\textbf{M}\), from which \(\textbf{P}\) was copied) in the following terms: \(^{42}\)

Those two manuscripts \(\textbf{E2} - \text{by implication \bf E1} - \text{and \bf P}\) are in complete agreement with each other, so that substantial variants (*sachliche Varianten*) do not occur at all. The marginal notes \(\text{in \bf P}\) are only concerned with words which are difficult to read.

In the following, I shall argue that the picture is much more complicated, and that \(\textbf{M}\) and its copy \(\textbf{P}\) do offer many interesting variant readings which do not derive from \(\textbf{E1}\), both in the text and in the margins. My discussion will be based on the provisional collation of \(\textbf{E1}, \textbf{M}\) and \(\textbf{P}\) for the beginning of book Two reproduced in Appendix One below.

The relationship of the four manuscripts is particularly fascinating. \(^{43}\) Both \(\textbf{E1}\) and \(\textbf{E2}\) are written on paper in a mağribi hand, but not

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\(^{42}\) *CMG*, V, 10.1, p. xxxii.

\(^{43}\) They all have previously been described in various catalogues: \(\textbf{E1}\) in Henri Paul J. Renaud, *Les manuscrits arabes de l’Escorial, décrits par H. Derenbourg . . . revues et complétées par H. P. J. Renaud*, vol. 2.2 (Paris, 1941), pp. 18–19, no. 804; \(\textbf{E2}\) *ibid.*., pp. 19–20, no. 805; \(\textbf{M}\) in Oscar Löfgren and Renato Traini, *Catalogue of the Arabic manuscripts in the*
by the same hand; nor do they come originally form a single set, as
Pfaff assumed. The colophon of the latter gives the date of its
production as AH 609, corresponding to AD 1210/11.\footnote{E2, fol. 196a.}
We can only speculate when \textbf{E1} was produced, although it probably dates from a
similar period as \textbf{E2}. Interestingly, in \textbf{E1} there are, throughout the
manuscript, notes in Hebrew and Judaeo-Arabic, perhaps dating
from the fourteenth century. This suggests that the manuscript came,
at least for some time, into the possession of a Jewish owner.\footnote{E.g. fol. 1b, line 4: \( \text{א"פ פל יד ב"פ יד} \) (What is the meaning of the term \textquote{Epidemics}).}

The Escorial Library, in which \textbf{E1} and \textbf{E2} are kept today, suffered
severely when a fire consumed many of its treasures in 1671. Since
\textbf{E1}, comprising books 1–3, and \textbf{E2}, comprising book 6, did not
originally form a set, it seems likely that counterpart volumes
containing the other parts once existed, which subsequently perished
in the flames of this fatal blast. This assumption is confirmed by two
pieces of evidence. A catalogue of the Escorial holdings compiled
under the supervision of Benedictus Arias Montanus (d. 1598) in
1577 lists the following items:\footnote{Nemesio Morata, \textquote{Un catálogo de los fondos árabes primitivos de El Escorial},
\textit{Al-Andalus}, 2 (1934): 87–181.}

\begin{itemize}
\item \textbf{I.6.17} 33 Hippocrates, from his work called \textit{Epidemics}, from the beginning of the
first to the end of the third book, in the commentary of Galen on the craft
\textit{[fann]} of medicine.
\item \textbf{II.6.17} 35, 36 Hippocrates, in the commentary of Galen, from the first to the end of the
third book of the work \textit{the Epidemics} on medicine.
\item \textbf{II.6.17} 35, 36 Hippocrates, the work called \textit{Epidemics} in the commentary of Galen, in
eight parts.
\end{itemize}

\textbf{I.6.17} 33 Hypocrates Las Epidemias segundo y \( 3^o \) Con comento de Galeno.

\[ \text{...} \]
35 Hypocrates p⁰ 2 y 3⁰ tratado de las Epidemias con comento de Galeno, traducido por Unei hijo de Isaac

36 Ipocrates de Epidemia con comento de Galleno en 8⁰ tratados.

Because of the shelf marks mentioned in this list and in the manuscripts E₁ and E₂, we know that item number 35 in the list corresponds to E₁, and number 36 to E₂. Therefore at least item 33, a manuscript containing the first three books of Gal. in Hipp. Epid., is missing from the present collection and probably perished during the 1671 blaze.

More than half a century before this fire, in the year 1617 to be exact, a Scottish scholar by the name of David Colville (Colvillus) came to the Escorial.⁴⁷ He had previously studied in St. Andrews from 1597 to 1601, where he took an MA. At some stage before his arrival in the Escorial, perhaps in 1605 in Paris under the influence of his uncle John, David Colville converted to Catholicism and became a monk. During his ten year sojourn in the Escorial, he taught himself Arabic and copied a number of manuscripts.⁴⁸ One of

⁴⁷ For some general information about this Scottish scholar, see D. M. Dunlop, ‘David Colville: a successor of Michael Scot’, Bulletin of Hispanic Studies, 28 (1951): 38–42. Thomas Burman, ‘Cambridge University Library MS Mm. v. 26 and the history of the study of the Qurʾān in early and modern Europe’, in Burman, Meyerson, and Shopkow (eds.), Religion, Text, and Society in Medieval Spain and Northern Europe: Essays in Honor of J. N. Hillgarth (Toronto, 2002), pp. 335–63 at pp. 344–6, shows that Colville copied an archetype of a Qurʾān in four columns (Arabic, transliterated in Latin characters, translated into Latin, commentary) at the Escorial; this copy is now preserved in Milan, Biblioteca Ambrosiana, MS D 100 inf. [see Löfgren and Traini, vol. 1, pp. 41–3]; see also Burman, Reading the Qurʾān in Latin Christendom, 1140–1560 (Pennsylvania, 2007); and Marie-Thérèse Urvoy (ed.), Le Psautier mozarabe de Hafs le Goth (Toulouse, 1994), pp. iii–iv (another work that Colville copied at the Escorial).

⁴⁸ In the colophon of one of these manuscripts, Milan, Biblioteca Ambrosiana, MS D 141 inf., copied by Colville and containing al-Fīrubzāḥī’s (d. 1415) Comprehensive Dictionary (al-Qāmūs al-muḥfīq), he says the following about his learning Arabic:

‘Ego Daud Colvillus natione Scotus in regia Bibliotheca [est] Laurencii ad Escorialium cum licentia superiorum tum praevidum [anc]tæ Inquisitionis tum Prætorum monasterii et Bibliothecarii dictionarium istud dictionum Al Camus manu mea descripsit ex quatuor diversis exemplaribus, cum binoio ante, cum primum coeperam linguam hanc addiscere sine ullo alio auxilio quam per libros et dictionaria, transcripteram dictionarium Goheri [al-Gawhari], et in transcriptione istius duos plus minus annos insumpsi, et tandem finem imposui anno Domini nostri 1623 Idibus circiter Augusti. Laus Deo et Beatæ Virgini.’

‘I, David, Colville, of Scottish nationality, have written with my own hand this dictionary, called al-Qāmūs, in the Royal Library of the Blessed Laurence in Escorial by permission of my superiors, both the presidents of the Holy Inquisition and the fathers of the Monastery and the Library, using four different manuscripts. Two years earlier, when I had begun to learn this language [Arabic] without any help except through books and dictionaries, I had copied al-Gawhari’s (d. c. 1007) dictionary and spent roughly two years on doing this. I finally finished in the year of our Lord 1623, around the Ides of August (i.e. the 13th). Praise be to God and the Blessed Virgin.’

these Arabic manuscripts is M, in which Colville endeavoured to compile the necessary materials to fill the gap in the Greek transmission of Gal. *in Hipp. Epid.* At the beginning of the manuscript, he says the following about how he produced the manuscript:

Commentarii Galeni numero sex in totidam sectiones IIIi epidemicarum Hippocratis intergrxi ex arabica transcripti cum alioqui non extent apud Graecos nec Latinos nisi secundo et tertiio commentariio et ex illis fragmenta aliquot misera, hic integros reperi in pluribus exemplaribus in praestantissima bibliotheca Regia ad D[omini] Laurentii Escurialae dicta et manu propria descripsi David Colvillus Scotus.

Galen’s complete Commentary in six parts on the same number of sections in the second book of Hippocrates’ *Epidemics*. I copied it from the Arabic, because it does not survive elsewhere, neither in Greek nor in Latin, apart from the second and third parts, and even of these only some pitiful fragments. I found it in its entirety in a number of manuscripts in the excellent Royal Library, called Escorial of St Laurence, and copied it with my own hand, I David Colville, the Scot.

At the beginning of book six, he gives fewer details:

Commentarii Galeni in Vltum epidemicarum Hippocratis a medii sexti commetariii usque ad finem octavi (ex translatione Honeini) qui differunt a supplementis quae edicta fuerunt Latine a Rasario.

Galen’s Commentary on the sixth book of Hippocrates’ *Epidemics*, from the middle of the sixth to the end of the eighth part (from Ḥunayn’s translation); [these parts] differ from the supplements published in Latin by [Joannes Baptista] Rasarius [d. 1578].

Thus, according to Colville’s own words, he produced his copy of Gal. *in Hipp. Epid.*, book Two ‘from a number of manuscripts (a pluribus exemplaribus).’ From the catalogue we know that there were at least two manuscripts of this part of the text in theEscorial library. The use of the word ‘pluribus’ would suggest that Colville had access to other manuscripts as well. For book Six, the situation may have been different.

Let us now consider Colville’s manuscript itself, namely M. Is it true that ‘substantial variants do not occur at all’ and that the ‘marginal notes are only concerned with words which are difficult to read’, as Pfaff claimed for MS P, a nineteenth-century copy of M? Obviously, only a careful collation of all the manuscripts can answer this question definitively. By collating the beginning of book

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49 He refers to Joannes B. Rasarius, *In Hippocratis librum de humoribus commentarii tres: ejusdem reliquum sexti commentarii in sextum de vulgaribus morbis: item secundus, et octavus / super in lucem editi ac latinitate donati: Jo. Baptista Rasarius interprete . . .* (Venice, 1562); the commentary on the last two and a half parts of book six is spurious; he drew on Palladius (fl. c. first half of 6th cent. AD) to fill in the gap.
Two, however, we can get a first impression of how David Colville worked.

First of all, it is important to note that there are many differences between E1 on the one hand, and M (together with P) on the other. Whilst the marginal notes in M were written solely by the same scribe as the text, David Colville, we have a variety of hands in the margins of E1, one of which appears to be that of Colville himself (E15). Colville thus corrected E1, and his corrections are often identical to the text of M. Conversely, in the margins of M, we find at times variants reflecting the readings of E1. For instance, he introduced by ‘in alio (in another [manuscript])’ or the abridged form ‘in al.’ some such variants (see Appendix One, nn. 97, 104, 114). Yet in at least one instance (ibid., §44, n. 102), there is a case where his text in M is different from E1, and where he notes a variant reading different from both that in M and in E1. This makes it likely that he had at least a third manuscript – apart from E1 and the lost manuscript mentioned in the 1577 catalogue as number 33 – at his disposal. This would chime well with his statement that he produced M ‘from a number of manuscripts’.

The beginning of a Paris manuscript, fols. 1a–19b of Paris, BnF, MS fonds arabe 6734 (P2), contains the Arabic version of the first book of the Hippocratic Epidemics. Degen has argued persuasively that this was extracted from the lemmas of Hippocrates in Galen’s Commentary. This is not the only case where the Arabic version of Hippocratic text is reconstituted from the lemmas contained in one of Galen’s commentaries.

Finally, Bergsträsser52 mentioned Munich, Bayerische Staatsbibliothek, MS Cod. arab. 803a (Mu), which he said was a partial copy of E1, containing extracts from Gal. In Hipp. Epic. on Book Two (notably ii, 1 and ii, 4). Dr Rehan, of the Bayerische Staatsbibliothek, informed me that this manuscript ‘unfortunately does not exist’ in their collections, and that MS cod. arab. 803 does not contain the extracts mentioned by Bergsträsser.54 As a copy of E1, and given its fragmentary nature, Mu is unlikely to offer additional readings, even if it were located again.

For the constitution of Ḫunayn’s Arabic version of Gal. In Hipp. Epid., the indirect tradition is potentially important. Its major exponents are al-Rāzī, Ibn Riḍwān55 and Ibn al-NAFIS. The last two

52 Gotthelf Bergsträsser, Ḫunain ibn Ishāk und Seine Schule (Leiden, 1913), p. 25.
53 Email 5 July 2007.
54 Email 12 July 2007 (sent by Alexander Morar).
55 Ibn Riḍwān’s commentary on the Epidemics is extant is Cambridge, University Library, MS Dd. 12. 1 (fols. 127b–196b); cf. Fuat Sezgin, Medizin-Pharmazie-Zoologie-Tierheilkunde bis
have each written lemmatic commentaries on the Hippocratic Epidemics. Yet their engagement with the Hippocratic and Galenic texts is far more interesting than merely viewing them as quarries for lost Greek texts, as we shall see next.

**AL-RĀZĪ’S CLINICAL TRIALS**

Abū Bakr Muḥammad ibn Zakariyā al-Rāzī (d. 925) is generally believed to be the greatest clinician of the Middle Ages. He worked in, and at times even directed, a number of hospitals in Baghdad and his native Rayy (near modern Tehran). Space does not permit for a full discussion of how crucial he thought the Epidemics were for furthering the art of medicine. In the following, I shall only briefly highlight some aspects of his work as a clinician and author of medical treatises in which he was particularly concerned with the Epidemics.

Throughout his professional life, al-Rāzī placed great importance on case notes. His students often recorded them, and they published a selection, arranged according to topics from tip to toe, after his death as the Book of Experiences (Kitāb al-Taḡārib). Moreover, al-Rāzī himself included some thirty case notes in his extensive files which, again, his students published after his death as the Comprehensive Book (al-Kitāb al-Ḥāwī). At the beginning of the section of the Comprehensive Book containing these case histories, al-Rāzī explicitly states that one should ‘beware not to neglect them [case histories contained in the Epidemics], for they are extremely useful,

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ca 430 H., Geschichte des arabischen Schrifttums 3 (Leiden, 1970), p. 35. Since it has not yet been the object of substantial scholarly attention, I only mention it here. Future research will have to determine its nature and scope.

56 This is only a short sketch; for a more detailed discussion, see Peter E. Pormann, ‘Medical methodology and hospital practice: The case of tenth-century Baghdad’, in Peter Adamson (ed.), In the Age of al-Farabi: Arabic Philosophy in the 4th/10th Century, Warburg Institut Colloquia (London, 2008) [in press].


especially those contained in the *Questions [on the Epidemics]*.\(^{60}\) Thus he views his own note-taking in the tradition of his Greek predecessors. Yet he also pursued specific purposes when recording these case histories. For instance, when searching for a new cure for dropsy (*istiqaš*), he tried out different treatments in order to test a new therapeutic approach, mentioning that he took into consideration ‘two thousand’ patients’ case notes.\(^{61}\)

On the level of medical methodology, apart from such large numbers being present in clinical trials, the most impressive innovation is the use of a control group. When treating ‘phrenitis (sirsām), a sort of meningitis, al-Rāzī once used a control group in order to test the prescribed treatment, bloodletting, or as he put it: ‘I once saved one group [of patients] by it [through bloodletting], whilst I intentionally left another group, so as to remove the doubt from my opinion through this [astabri’u bi-đālika ra’yī].’\(^{62}\) For the present purposes, it is revealing that al-Rāzī devised this test involving a control group against the backdrop of Ḥunayn’s *Questions on the Epidemics*. This shows that the Hippocratic tradition of the *Epidemics* was doubly important for al-Rāzī: he followed its model in his clinical practice and furthered his research through recourse to recording patients’ histories; and the theoretical framework developed in Galen’s *Commentary*, abridged in Ḥunayn’s *Questions on the Epidemics*, stood him in good stead when devising his own approach to theory and practice.

**IBN AL-NAFĪS**

Finally, the famous physician and philosopher Ibn al-Nafīs wrote a lengthy commentary on the Hippocratic *Epidemics*, entitled *Kitāb Abīḍīmiyā li-Abūqrāṭ wa-taṣfīruhu al-maraḍ al-wāṭif, ṣarḥ al-sayḥ ‘Alā’ al-Dīn ibn al-Nafīs* (The book of *Epidemics* by Hippocrates – meaning ‘epidemic disease’; commentary by sheikh ‘Alā’ al-Dīn ibn al-Nafīs). It is preserved in two manuscripts, Istanbul, Süleymaniye Kütüphanesi, MS Aya Sofya 3642 (AS), perhaps dating to the fourteenth or fifteenth century AD; and Cairo, Dār al-kutub, MS ṭibb


Peter Bachmann has shown that MS C is either merely a copy of AS or represents a very similar branch of the textual tradition.

This commentary is lemmatic, that is to say that Ibn al-Nafis first quotes a passage from the Hippocratic text, and then explains and expounds it. At the beginning of the text, he describes his method as follows:

We now embark on the path of explaining the meaning of the book known as ‘The book of the Epidemics’ by master [imām] Hippocrates – it means ‘epidemic disease (al-marad al-wāfīd)’ – namely that which occurs because the qualities of the air are corrupted. Conversely, that which occurs because its [sc. the air’s] substance is corrupted is designated by the specific term ‘plague (mauṭān)’. This shall take the form of us briefly explaining its [the book’s] vocabulary [al-fāz], establishing its aims, and clarifying obscure points [muşıkilihi], and detailing its general content. To extend our discussion, however, by giving excessive details and to object to those who have a different opinion by showing them to be wrong and invalidating [their arguments] is something which we have avoided, because we were loath to talk at great length. We are satisfied with what we have provided in other books.

Therefore, Ibn al-Nafis’ Commentary is much more concise than Galen’s. He often follows a fairly mechanical pattern of first quoting
the Hippocratic original, and then explicating it. In doing so, he frequently employs the same formulae ‘ammā ... fa (as to ... it)’ and ‘qaululu ... yurīdu (when he says ... he means)’. Both Bachmann and Amal Abou Aly convincingly argued that Ibn al-Nafīs knew Galen’s commentary in Ḥunayn’s translation.\(^67\) The latter even showed that Ibn al-Nafīs did not realise that certain problems of interpretation did not stem from the Greek original, but rather from Ḥunayn’s version.

**CONCLUSIONS**

Ḥunayn’s Arabic version of Gal. *In Hipp. Epic.* is of crucial importance in two main respects: as a source for lost or badly preserved Greek texts; and as the basis for any study on its impact and influence on taking patient’s histories, recording case notes, and using them for teaching purposes in the medieval Islamic world.

Already in the 1620s, the Scottish scholar David Colville copied out carefully those parts of the Arabic translation not extant in Greek. Roughly a century and a half later, the celebrated Arabist Michael Casiri quoted extensively from the Arabic translation, and noted the crucial importance of this version,\(^68\) as did the famous German philologist Johannes Mewaldt, saying: ‘Therefore, given that the Greek manuscripts [of Gal. *In Hipp. Epid.*] are so deplorable, we have to rejoice in the fact that this [Arabic] translation has come down to us [. . .]’.\(^69\) The doyen of Graeco-Arabic studies, the German physician Max Simon, undertook to edit and translate this Arabic version, but passed away before he could complete this task. Another German, Franz Pfaff, continued Simon’s work. When Wenkebach edited Gal. *In Hipp. Epid.* for the Corpus Medicorum Graecorum [CMG, V, 10. 1–2], he called on Pfaff to provide him with a German translation of the Arabic version, both to improve the Greek text, where it is extant, and to supplement it, where it is not.\(^70\) In order to

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\(^70\) Pfaff’s translation, although a great achievement in its own right and a milestone in Galenic scholarship – it enabled generations of Classicists to access material lost in Greek –, is generally held to be unreliable; see Gotthard Strohmaier, ‘Galen in Arabic: Prospects and projects’, in Vivian Nutton (ed), *Galen: Problems and Prospects* (London, 1981), pp. 189–96, on p. 189. Two instances of Pfaff’s translation being rectified through a fresh reading of the
do so, Pfaff drew on Simon’s previous efforts, and his original aim was to publish the Arabic text alongside a revised German translation, but the economic circumstance in 1930s’ Germany did not allow for the then costly printing of the Arabic. Pfaff ends his preface by saying: ‘For the sake of scholarly rigour, the Academy wants to print the Arabic text at a later date, when the economic situation will again allow for the great expense.’\textsuperscript{71}

To date, this vow has not been fulfilled. Nor have scholars of Arabic and Islamic medicine taken the trouble to edit, or even study, this seminal work. As we have seen above, especially for clinical and educational purposes, the Arabic version of Gal. In Hipp. Epid. was of crucial importance. It provided a framework for methodologically sophisticated tests, and helped students learn to take patients’ histories and to diagnose them. Yet much of its impact on the development of medicine in the medieval Islamic world, and notably on the genre of case notes, awaits scholarly exploration. It can only be hoped that this Galenic commentary, the largest and greatest of its kind, will soon find editors who will publish the Arabic version and place it into its historical context.\textsuperscript{*}

\textbf{APPENDIX ONE}

Sample collation of Gal. in Hipp. Epid. book 2, part 1, beginning (containing the first case history). CMG, V, 10.1, p. 155, line 5–p. 158, line 32.\textsuperscript{72}

\begin{tabular}{ll}
\textbf{MSS:} & \\
\hline
\textbf{E1} & fol. 44b, line 6–fol. 45b, line 12 \\
\textbf{E1}\textsuperscript{1} & marginal note or correction in \textbf{E1} by the same hand as the scribe of the main text. \\
\textbf{E1}\textsuperscript{2} & marginal note or correction in \textbf{E1} by David Colville, the scribe of \textbf{M}. \\
\textbf{E1}\textsuperscript{3} & marginal note or correction in \textbf{E1} by a different hand. \\
\textbf{M} & fol. 1a, line 10–fol. 2a, line 24 \\
\textbf{M}\textsuperscript{1} & marginal note or correction in \textbf{M} by David Colville, the scribe of the main text. \\
\textbf{M(P)} & reading of \textbf{M}, with \textbf{P}, its apograph, offering the same text. \\
\end{tabular}

\textsuperscript{71} Ibid., p. xxxiii: ‘Der Wissenschaftlichkeit wegen will aber die Akademie doch den arabischen Text auch drucken lassen, wenn die Wirtschaftslage den Aufwand größerer Mittel wieder gestattet.’

\textsuperscript{72} Bergsträsser, 	extit{Hunain ibn Ishāk und Seine Schule}, p. 39 has previously edited the beginning of this extract, presumably from \textbf{Mu}.
marginal note or correction in M by David Colville, with P, its apograph, offering the same note.

P fol. 1a, line 1–fol. 3b, 4th line from the bottom
فيه بعد تزودة والعرض الذي حدث فيه عند بلوهه والعروض الذي حدث فيه عند
منتهائه [19] والسبب في تقديمه ذكر العرض على خلاف عادته ثم ثنى به فذكر
حال الهواء، قصدته للإيجاز ؛[20] فقد لم يذكر الوافع لهذه المقالة أي وقت نفسه كان أو
تاسالوس ابنه خريصا على الإيجاز [21] ولا فرق عندي في ما نحن به بينه وبين أن يقال
إنه هذا الكتاب لأقرباط [96] وبين أن يقال إن تاسالوس [22] وإن من خصى هذا الأشياء
التي ذكرتها [98] مجعولا [23] فأقول إن فتاحة هذه المقالة كان وجهها شيئها ما تقدم من
الرسوم قبل الشيء الذي يقصد لصفته كما قال [25] إن الجمجم الذي حدث في
الصفح في ذيد قرآون [26] ثم تقطع إذا قرأ هذا ولا يتحدى اللفظ وتقرأ جائحة
أمل جود [28] حتى تفهم في هذا 99 الأكلام الأول من نحات أنه كان على هذه الجهة
كأنه قال [29] إن الجمجم الذي كان يقرأون كان على هذه الجهة 300 جاءت
أمل جود عن حرف الصفح كله [31] وكان أكثر ما يكون تلك الأكراه مع الجنوب [M 1b]
والجمرنة هي قرحة تكون من نتاقاً، نفسها، عليها [32] خشيوكية في أكثر الأمر سودا، وربما كانت بلون الرماد [33] ويكون معها في
الوصاع التي تتبث بها حرارة شديدة حتى يحسم من يتمسها لها حرارة كبيرة فضا عن أن
يحسنها صاحب القرحة [34] والوصاع أيضا التي 103 حول الخشيوكية ليست
بصادقة 104 الجمرة 105 كما يكون في الدور الخير 106 الذي يسمى فلمستوي 107
لكنه يكون مائلا إلى السواد والصلابة أيضا فيه أزيد كثيرا 35 وعلى هذه
الصفحة رأينا نحن الجمجم الذي حدث بكثير من الناس فيديتة برغام 108 ورأوا غيرنا في سائر

91 عند بلوهه والعروض الذي حدث فيه E1: om. M(P); حدد. E1.
93 حال الهواء، قصدته للإيجاز ؛[20] فقد لم يذكر الوافع لهذه المقالة أي وقت نفسه كان أو
94 تاسالوس ابنه خريصا على الإيجاز [21] ولا فرق عندي في ما نحن به بينه وبين أن يقال
إنه هذا الكتاب لأقرباط [96] وبين أن يقال إن تاسالوس [22] وإن من خصى هذا الأشياء
95 خشيوكية في أكثر الأمر سودا، وربما كانت بلون الرماد [33] ويكون معها في
الوصاع التي تتبث بها حرارة شديدة حتى يحسم من يتمسها لها حرارة كبيرة فضا عن أن
96 تحسنها صاحب القرحة [34] والوصاع أيضا التي 103 حول الخشيوكية ليست
بصادقة 104 الجمرة 105 كما يكون في الدور الخير 106 الذي يسمى فلمستوي 107
97 يكون مائلا إلى السواد والصلابة أيضا فيه أزيد كثيرا 35 وعلى هذه
الصفحة رأينا نحن الجمجم الذي حدث بكثير من الناس فيديتة برغام 108 ورأوا غيرنا في سائر
98 مجعولا [23] فأقول إن فتاحة هذه المقالة كان وجهها شيئها ما تقدم من
الرسوم قبل الشيء الذي يقصد لصفته كما قال [25] إن الجمجم الذي حدث في
الصفح في ذيد قرآون [26] ثم تقطع إذا قرأ هذا ولا يتحدى اللفظ وتقرأ جائحة
أمل جود [28] حتى تفهم في هذا 99 الأكلام الأول من نحات أنه كان على هذه الجهة
99 كأنه قال [29] إن الجمجم الذي كان يقرأون كان على هذه الجهة 300 جاءت
أمل جود عن حرف الصفح كله [31] وكان أكثر ما يكون تلك الأكراه مع الجنوب [M 1b]
والجمرنة هي قرحة تكون من نتاقاً، نفسها، عليها [32] خشيوكية في أكثر الأمر سودا، وربما كانت بلون الرماد [33] ويكون معها في
الوصاع التي تتبث بها حرارة شديدة حتى يحسم من يتمسها لها حرارة كبيرة فضا عن أن
يحسنها صاحب القرحة [34] والوصاع أيضا التي 103 حول الخشيوكية ليست
بصادقة 104 الجمرة 105 كما يكون في الدور الخير 106 الذي يسمى فلمستوي 107
لكنه يكون مائلا إلى السواد والصلابة أيضا فيه أزيد كثيرا 35 وعلى هذه
الصفحة رأينا نحن الجمجم الذي حدث بكثير من الناس فيديتة برغام 108 ورأوا غيرنا في سائر
مدن بد أصيل 109 كلها إلا الخطا، كان الذي خبرنا به من رؤى 36 ولهدى منذ كان أربعون سنة لم نر فيح حدوت عام آخر مشبيه بذلك من هذا الجمر 37 وكان ذلك الجمر الذي كان يبعث حال من الهواء جنوبية رطبة مع سكون من الرياح 54a

[38] وهذه هي حملة صفة الحال التي وصفها أبقراط أيضا.

[39] فإنه قال [40] إنه جاءت أطباء 110 جود مع حر الصيف كله 41 وحذوف المطر في الصيف كان آخر عن الأمر الطبيعي ولا سيما إذا كان المطر جودا 42 فإنه ذلك كلام في الشتاء جعل مواجهة رديفنا 43 فإن كان مع ذلك حز 111 أعطني ألا تهب رياح قوية فإن الحر لا يكون في الصيف إلا بعدها السبب فإن الآفة تكون أعظم 44 وذلك أمر قد كان يعرض بقرانون فإنه قد كانت الرياح في ذلك الوقت وإن هجت في الأحاديث 114 فإنها إذا كانت تقوم جنوبية 45 وهذه الريح من أعون الرياح على إخراج قوة البنك كما وصف أبقراط في كتاب الفصول وعلى أن أطراض العفونة 46 وقرانون أيضا هي مدينة من بلاد تساميا 117 من قبل أنها في ودها وهي أيضا مع ذلك في ناحية الجنوب توافق ما كانت عليه 118 تلك الحال من الأطراف 48 ولذلك أيضا وقت تلك الحال من أوقات السنة الذي 119 دل عليه في قوله 

الجمر الصيفي يعني الجمر الذي كان حدث في الصيف 49 على أن قوما فهموا من قوله هذا لا أنه كان في ذلك الوقت بل أنه يكون كذلك دائما وأنا هذا أمر خاص لتولد 121 الجمر 50 ولا فوق في ذلك الجمر الذي كان في ذلك الوقت إذ كان تولد الجمر إذا شأن أنه أن يكون في الصيف 51 أو كان إذا حدث بقرانون في الصيف 122 فإن الذي يكتفي به هذا 123 فقط أن يعمل من أمر حدوته أن مراجعة الهواء الذي حدث منه 124 كان حذف عديما للرياح رطبها 53 فقد نرى عيانا أن 128

109 [si.]
110 [sic.]
111 [sic.]
112 [sic.]
113 [sic.]
114 [sic.]
115 [sic.]
116 [sic.]
117 [sic.]
118 [sic.]
119 [sic.]
120 [sic.]
121 [sic.]
122 [sic.]
123 [sic.]
124 [sic.]
125 [sic.]
126 [sic.]

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145 عرضت [M(P); E1].
146 أن يستعمل [M(P); E1].
147 P(3b); Artemidorus, puto.
148 إلا [M(P); E1].
149 عن [M(P); E1].
150 ويصير تحت الجلد صديد [M(P); om. E1; E1].
151 الجرم [M(P); E1].
152 ولا [M(P); E1].
153 وجسمها [P; M]; إحساسا [E1].
The first part of Galen’s Commentary to the second book by Hippocrates called *Epidemics*. Translated by Ḥunayn ibn Ishāq.


[8] Galen said: [9] ‘Hippocrates described in the first book the issue of three states of air which cause diseases. [10] In the third part of this same book, he describes the issue of the first state and the second. [11] He begins by describing all these states in terms of change in the air which surrounds the bodies, and its unnatural state. [12] Then he proceeds by describing the nature of the diseases which befell many people because of these states. [13] In this book, he does not do this in this fashion, but rather discusses first the disease which occurred; [14] then he discusses the time of the year when it occurred; [15] then he discusses the country in which it occurred; [16] then he discusses the mixture [or ‘temperament’, mizāḡ, translating Greek kránis] of this time and the bad humour generated in the bodies of the people because of it [the mixture]; [17] then he describes the way in which the humour works which was the cause for the carbuncles being generated; [18] and then he discusses the symptom [‘arad] which precedes this, the symptom which accompanies it in this state, the symptom which occurs in it after its increase, the symptom which occurs in it when it reaches its peak, and the symptom which occurs in it at the end of it. [19] The reason for his mentioning the disease first contrary to his usual practice – he then turns and mentions the state of the air – is his intent to be brief. [20] We perceive that the author of this book – whether it be Hippocrates himself, or his son Thassalus – desires to be brief. [21] It makes no difference for me in our present endeavour whether one says that this book is by Hippocrates or Thassalus. [22] I am going to explain the things which I have discussed in a summary fashion, and say the following. [23] It is as if he [Hippocrates] made the beginning of this book similar to an outline [rasm, in the sense of

^1 من هذا قرحنة ذات خشككريفنة: لم (M): ذات E1 (E1) إلما إذا قرحنة ذات خشككريفنة 154
which comes before the thing which he [actually] intends to describe. [24] It is as he said: [25] ‘The carbuncles which occurred in the summer in the city of Cranon’. [26] Then you stop, after you have read this, and start from the [actual] beginning, reading: [27] ‘abundant rain came’. [28] Then you understand by yourself that the first phrase was [meant] as if to say: [29] ‘The summer carbuncle which occurred in Cranon happened in the following way [kānat ‘alā ḥāḍīhi al-ḡīhati]: [30] abundant rain came with the heat of the summer during its entirety [kullahā]. [31] This happened mostly together with a south wind.’

[32] A carbuncle is an ulcer which occurs by itself; on it there is scab, mostly black, although it sometimes has the colour of ashes [i.e. grey]. [33] In the places surrounding it, it is accompanied by severe heat, so that if someone touches them, he feels a lot of heat, not to mention that the patient suffering from the ulcer also feels it. [34] The places, too, around the scab are not truly red, as in the case of an inflammation [waram ḥārr] called ‘phlegmonē’,[155] but rather are blackish; hardness is also much greater in it. [35] We have seen carbuncles according to this description in many people in the city of Pergamum, and others have seen it in other cities in all the land of Asia, apart from the mistake such as that about which he who saw it informed me [iilā al-ḥaṭa‘a ka-allaḍi ḥabbarānā bihi man ra‘āhu]. [36] Therefore, for forty years we have not seen another year similar to that one as regards these carbuncles. [37] Those carbuncles which appeared following a southerly and wet state of wind, occurred together with the wind’s becoming still. [38] This is a summary description of the state which Hippocrates described as well.

[39] He said: [40] ‘abundant rain came with the heat of the summer during its entirety’. [41] That rain occurred during the whole summer [fī al-sayḥi kullihī] is unnatural, especially if the rain was abundant. [42] If this had happened during the winter, it [the rain] would have turned its mixture into a bad mixture [or ‘temperament’]. [43] If, in addition to this, there was heat — I mean that no strong winds were blowing, for heat during the summer only occurs for this reason — then the ailment becomes greater. [44] This is something which had previously happened in Cranon, for the winds at that time, even if they blew occasionally, used to be [kānat takūnu] only southerly. [45] This [south] wind is one of the most effective winds in slackening the strength of the body, as Hippocrates said in his book of Aphorisms,[156] and for producing diseases of putrefaction. [46] Cranon, too, is a city belonging to the land of Thessaly, insofar as it is situated in a depression. [47] Also, in addition to this, it is situated on the south side, and thus fits the excessive condition of this state. [48] Moreover, the time of this state belongs to the times of year which he indicated by saying ‘Summer carbuncles’, meaning ‘the carbuncles which had occurred [kāna ḥadāta] during the summer’. [49] Some people, however, understood him to have said not that it occurred [kāna] at this time, but that it is [yakūnu] always like this; that it is something specific to the generation of carbuncles; [50] and that there is no difference between these carbuncles which occurred at that

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[155] For waram ḥārr as rendering φλεγμονή in the sense of ‘inflammation’, see Pormann, Oriental Tradition, p. 25.

[156] Aph. iii. 5: Νότοι βαρηκοῖοι; ἥχλοδόιες, καρηθαρικοί, νοθροί, διαλυτικοί ὁκόταν οὕτως διαναστέλλη, τοιαύτα ἐν τῆσιν ἀρροστήσα πάγχοσιν.
time [and other carbuncles], for carbuncles are typically generated during the summer. [51] Or [they understood] that they occur in Cranon only during the summer. [52] What he is content with is this: that what contributes to their [the carbuncles'] being generated is that the mixture of the air by which they are brought about is warm, stagnant, and is moist. [53] We see with our own eyes that all bodies putrefy in this state, even if he does not give the reason for this [explicitly]. [54] Hippocrates, however, explains the reason for this [implicitly] by saying [55] ‘Pus develops [yasṣru] under the skin. [56] When it is blocked [iḥtaqana], it becomes hot’. The meaning of his saying ‘it is blocked [iḥtaqana]’ [57] is that it remains inside the body, and is not purged in a way apparent to sense-perception, nor in a hidden way. [58] Rather, it stays inside and then putrefies. [59] Because of this, it becomes hot in an unnatural way. [60] When this happens [kāna], it first generates itching. [61] Itching is produced by humours which are not very virulently warm, but which have begun to become warm. [62] When [some] time has past, and the finest things in the humour which have putrefied easily penetrate the thinnest parts of the skin and accumulate under its outer layer because of its [the skin's] being dense, it generates blisters. [63] Things thicker than this did not penetrate so as to reach the outer layer of the skin, but were blocked [iḥtaqana] inside under the skin. [64] They accumulated there, then putrefied and became intensely warm until the patient ‘imagined [kāna tuḥyyyla ilā ṣāḥibih] that what is under the skin is burning [yaḥtariqu] strongly’. [65] Then afterwards the blisters were spreading out [kānat tatamaddadu] owing to the abundance of moisture in them, and corroding because of its [the moisture's] sharpness, so that they became scarce. [66] The skin underneath them was burning [kāna yaḥtariqu] because of this excessively hot humour, [67] so that there occurred [fa-yaḥduta] on it [the skin] because of it [the humour] something resembling scab which occurs [taḥduta] because of cautery. [68] These are things common to all carbuncles. [69] The things specific to the carbuncles which occurred at this time were the extremely excessive heat in them under the skin, the fact that blisters were generated and that it is not absolutely necessary that the occurrence of the carbuncles precedes that of the blisters. [70] Therefore, Hippocrates expressed these ideas by different forms of time [bi-alfa muḥtaliṭati al-asmaḥi, i.e. ‘tenses’]. [71] For he always described symptoms [a’rād] which are common to carbuncles in their [the symptoms'] occurrence through forms which indicate this present time, [72] such as when he [Hippocrates] says [73] ‘Pus develops [yasṣru] under the skin’ [74] or when he says: [75] ‘When it is blocked [iḥtaqana], it becomes hot [ṣaḥana] and generates [wallada] itching.’ [76] He did not express the symptoms which were specific to the carbuncles which occurred at that time with these forms, [77] but rather used forms which indicated that they occurred only with these carbuncles, [78] such as when he says about the blisters: [79] ‘during which blisters similar to the burning of fire used to emerge [kānat taḥruṣu]’, [80] or about the unnatural heat: [81] ‘They imagined [kāna tuḥyyyla ilayhim] that what is under the skin is burning [yaḥtariqu] strongly.’ [82] What is amazing is that all ancient authors knew this version, and that there are still people explaining this book by searching for the reason which prompted Hippocrates to use forms indicating different times.
Earlier, Artemidorus [Capito] and his colleagues had changed these forms and made them all indicate one time in the following way: [84] ‘Pus used to develop [kāna yaṣṭīru] under the skin’ [85] and ‘when it was blocked, it became hot [kāna ighā ḥtaqana saḥana] and generated [wāllada] itching.’ [86] I am going to summarise what I have said from the beginning, so as to cut short my discussion, by saying the following. [87] When Hippocrates said [88] ‘abundant rain came [gā’at] with the heat of the summer during its entirety. [89] This happened mostly [kāna akṭara mā yakānu] together with a south wind’, [90] he indicated the cause called ‘procatartctic [bāḍi’], which brings about the generation of carbuncles. [91] This cause is external to the bodies affected by the disease. [92] By saying [93] ‘Pus develops [yasṭīrū] under the skin’, [94] he indicated the cause called ‘pre-disposing [mu- ṭaqādīm]’, which brings about the generation of the carbuncles. [95] This cause first occurs within the body. [96] By saying [97] ‘When it is blocked [ḥtaqana], it becomes hot [ṣaḥana]’, [98] he indicated the way in which this cause brings about carbuncles, namely the excessive heat of the humour predominant in the body, [99] this predominance being due to putrefaction. [100] He called it ‘pus [ṣāḍīl]’, because it is unnatural in a bad and malicious way. [101] When he said [102] ‘and generates [wāllada] itching’, [103] this is a symptom which precedes the occurrence of carbuncles. [104] What comes afterwards is symptoms concomitant of these carbuncles, especially those which occurred at that time, [105] namely the occurrence of blisters similar to burning fire, and the sensation of violent heat under the skin, [106] so that those suffering from the ulcer imagine that the place is burning strongly. [107] He had already indicated that this therefore causes an ulcer, [namely] right at the beginning of his discussion where he said: [108] ‘Summer carbuncles which occurred [kāṇat] in Cranon’. [109] For the term ‘carbuncles’ only indicates an ulcer the state of which is this and which is accompanied by a burning around it, as I have said.

APPENDIX TWO

Extract from Ḥunayn’s Summaries (Ǧawāmi’) in Question-and-Answer Format, also called Questions on the Epidemics (Masā’il al-Abīḏīmiyā)

MS M, fol. 119a:

[1] جوامع مباني المقالة الأولى من تفسير المقالة الثانية من كتاب إليه فيديميا على سبيل المسألة والجواب صنعة أبي زيد حسين بن إسحق المتنبي.[157]


In marg.: Interpretationes Huneini super libros Galeni in 2.m epidemicarum Hippocratis et in 6m.
ما الذي يعم جميع الجمرة وما الذي يخص الجمرة التي حدثت بالمدينة المعروفة
التي حدثت بقانون فشدة إفراط الحرارة تحت الجلد وتولد نفخات شبيهة بالنفخات
التي تكون من حرق النار فإن هذا ليس يتقدم ضرورة جميع الجمرة
والسبب الثاني مجيء تلك الأطمار كان الصيف كله [17] والثالث أنها كانت أطمار
قوية شديدة لو كانت مثلها في الشتاء أفسدت مواضعها [18] والرابع أنها كانت مع حر
وأحر لا محالة لا يكون إلا مع عدم الرياح الشديدة [19] والحال أنه كانت الرياح
إنه هي في وقت من الأوقات إنها كانت تهب من جنوب وتحل القوة وتولد الأضراز
وضع عريق جنوبى [21] وله أن تقضي إلى هذه الأسباب شيئا سابعا أن طولية تلك
الحال من أعوام الهواء كانت تعن من تحلق الفصول من الأبدان [22] فكانت تلتقيت فيها
داخل قطيع وتشتد عفونتها

لم تحتذ الحكة في أول هذه السنة [24] لأن الحكة إذا حثت من أخلاد قد
سحت ولم تبلغ منها السخونة لكنها ابتدع بها ابتداؤ.

ما إذا كانت تحتذ النفخات من بعد الحكة الخفيفة بالنفخات التي تكون عن
حرق النار والانحرار تحت الجلد [26] من الحلل الذي كان سعت [27] فاستدثت سخته
عن قوة العفونة وشيدها [28] وكانت النفخات تحتد ما رق من عدوها كان ينفذ فيما
سحت من الجلد بسسؤولة [29] فإذا انتهى إلى سلطنة الجلل اجتمعة تحت كلفة وترزوه
والاحتقاق تحتد ما غلظ من عدوها كان لا ينفذ [30]

لكن يبقى محتمنا فيه.

ما هو الكف في النفخة [33] أم مشتركة عامة لكل جمرة أو هي خاصة للجموة
التي تحذت بقانون [34] أوبل إن النفخة مشتركة لكل جمرة على الإطلاق [35] فإنه
من بعد أن تقع تلك النفخة تحت القرحة ووترى فيها الخشكوية التي تكون من الكي
والذي كان يخص الجمرة التي يقرانون النفخات التي من حرق النار.
[36] من أي سبب يقفز النفخة [38] من سبيلين [39] أحدهما قدماه بسبب كثرة
الرطوبة [40] والسبب الآخر تأكدها من حدتها.

158 In marg.: Debebat esse thessalia θεσσαλία.
159 In marg.: deest sed debet suppleri vel (?) simile.
[1] Summary of the content of the first part of the commentary on the second book of the *Epidemics* in the form of question and answer, produced by Abū Zayd Ḫusayn ibn Isḥāq, the physician *mutaṭabbib*.

[2] What is a carbuncle [ğamra]? [3] It is an ulcer [qarḥa] occurring by itself in which there is scab resembling the scab the colour of which is mostly black, [4] although it sometimes has the colour of ashes [*i.e.* grey]. [5] It is accompanied: by extreme heat around it which can be felt not only by the patient, but also by those who touch the spot from the outside; [6] by redness which is not absolute like the redness of a bloody swelling, but tending towards an excess of blackness; [7] and by hardness which is stronger than the hardness of a bloody [swelling].

[8] What is common to all carbuncles, and what is specific to the carbuncles which occurred in the city known as Cranon? [9] What is common to all carbuncles are the things which we have already mentioned [above in the previous question]. [10] The things specific to the carbuncles which occurred in Cranon are the extreme excess of heat under the skin, and the generation of blisters resembling those caused by the burning of fire. For this does not of necessity precede all carbuncles.

[11] Why is it that in the carbuncles which were in Cranon there was something more than in other carbuncles? [12] Because of the extreme power of putrefaction which existed there. [13] And why was the power of putrefaction extreme there? [14] Because of a concurrence of many causes which led [?] to its [the putrefaction’s] occurrence. [15] The first [cause] was the rain which came during the summertime; [16] the second cause was the fact that the rain came during the whole of the summer; [17] the third that the rain was strong and severe – if such a rain occurred during the winter, it would corrupt its [the winter’s] temperament; [18] the fourth that it was accompanied by heat – heat being necessarily accompanied by an absence of wind; [19] the fifth that the winds, even if they blew from time to time, only did so from the south, thus dissolving the strength and generating diseases caused by putrefaction; [20] sixth that this Cranon is an Thessalian\(^{160}\) city, situated in a southern depression; [21] you can add to these a seventh, namely that the moisture of this state of air was preventing that the superfluities were dissolved [and expelled] from the bodies. [22] Therefore they [the superfluities] lingered inside them [the bodies], so that the putrefaction became stronger and more severe.

[23] Why did itching occur at the beginning of the illness? [24] Because itching is caused by humours which have previously been heating without have reached their [full] heat – rather, they have only begun [to be heated].

[25] What caused the blisters to occur after the itching, [the blisters] which were similar to blisters resulting from being burnt by fire, and burning under the skin? [26] The humour which had become hot. [27] Its heat became so severe because of the power and violence of the putrefaction. [28] The

\(^{160}\) Colville’s emendation; M ‘Italian’.
blisters were caused by its [the humour’s] fine part when it penetrated easily
the area of the skin which had been heated. [29] When it [the humour]
arrived at its [the skin’s] outer surface, it gathered under it, because it was
[too] thick and compact. [30] Thus it gathered there and was blocked. [31]
The burning occurred because of the viscous part of it [the humour], when
it did not penetrate, but rather remained there being blocked.

[32] What do you say about the blister? [33] Is it shared by, and common to,
all carbuncles, or specific to the carbuncles which occurred in Cranon? [34]
I say that the blister is shared by absolutely all carbuncles. [35] For it
[happens?] after the blister under the ulcer has followed [?] and in it appears
scab caused by cautery. [36] The one which is specific to the carbuncles in
Cranon is the blisters which are caused by burning.

[37] For what reason do blisters follow? [38] For two reasons: [39] 1) since
they are stretched because of a large amount of moisture; [40] and 2) since
they are corroded by their sharpness.

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161 There is a lacuna in the text here; the translation reflects Colville’s emendation *fīhi wa-sudda*. 